



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,837	04/20/2001	Toshiharu Nogi	HAL-11303/04	5189
25006	7590	12/08/2005	EXAMINER	
GIFFORD, KRASS, GROH, SPRINKLE & CITKOWSKI, P.C			HOANG, JOHNNY H	
PO BOX 7021			ART UNIT	PAPER NUMBER
TROY, MI 48007-7021			3747	

DATE MAILED: 12/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/839,837	NOGI ET AL.
	Examiner	Art Unit
	Johnny H. Hoang	3747

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 30 June 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-100 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 1-36, 47-61, 63-65, 67-78, 81-85, 87-89, 91, 92 and 98-100 is/are allowed.
- 6) Claim(s) 37-46, 62, 79, 80, 86, 90, 93-97 is/are rejected.
- 7) Claim(s) 66 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 20 April 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04/20/01.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

1. The original patent, or a statement as to loss or inaccessibility of the original patent, must be received before this reissue application can be allowed. See 37 CFR 1.178.

Reissue Applications

2. Claims 37-46, 80, 95, and 96 are rejected under 35 U.S.C. 251 as being an improper recapture of broadened claimed subject matter surrendered in the application for the patent upon which the present reissue is base. See *Pannu v. Storz Instruments Inc.*, 258 F.3d 1366, 59 USPQ2d 1597 (Fed. Cir. 2001); *Hester Industries, Inc. V. Stein, Inc.*, 142 F.3d 1472, 46 USPQ2d 1641 (Fed. Cir. 1998); *In re Clement*, 131 F.3d 1464, 45 USPQ2d 1161 (Fed. Cir. 1997); *Ball Corp. v. United State*, 729 F.2d 1429, 1436, 221 USPQ 289, 295 (Fed. Cir. 1984). A broadening aspect is present in the reissue which was not present in the application for patent. The record of the application for the patent shows that the broadening aspect (in the reissue) relates to subject matter that applicant previously surrendered during the prosecution of the application. Accordingly, the narrow scope of the claims in the patent was not an error within the meaning of 35 U.S.C. 251, and the broader scope surrendered in the application for the patent cannot be recaptured by the filing of the present reissue application.

3. The subject matter surrendered is the specific details of "a heating chamber having a longitudinal lumen and disposed at the outlet of said cold start fuel injector for vaporizing the air-fuel mixture before it is delivered to the engine cylinder, wherein said heating chamber includes of a plurality of separately controlled independent heating element sections to vary the temperature across the heating chamber" as stated in claim 1. Claim 1 was previously allowed over prior art because of the specific details of the structure and operation of the heating chamber as indicated above, which are now omitted from the claim.

Specification

4. Claim 66 is objected to because of the following informalities: the limitation "a position of an ignition key" is not declared in claims 61-64. Therefore, claim 66 must be depended on claim 65. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 38, and 39 are rejected under 35 U.S.C. 112, first paragraph, because the best mode contemplated by the inventor has not been disclosed. Evidence of concealment of the best mode is based upon. The material which is not supported by the original disclosure is as follow: "*an ignition mechanism for generating a spark to fire the air-fuel mixture in the cylinder, wherein said ignition mechanism includes a spark plug, an ignition coil operatively connected to the spark plug for generating a voltage and an igniter operatively connected to the ignition coil for controlling the voltage of the ignition coil; and an engine control mechanism for operatively controlling said fuel delivery system.*" is disclosed in claims 38, and 39.

7. Claims 44, and 62 are rejected under 35 U.S.C. 112, first paragraph, because the best mode contemplated by the inventor has not been disclosed. Evidence of concealment of the best mode is based upon. The material, which is not supported by the original disclosure, is as follow: "*heating chamber is generally cone-shape*" is disclosed in claims 44, and 62.

8. Claims 86, 90, and 97 are rejected under 35 U.S.C. 112, first paragraph, because the best mode contemplated by the inventor has not been disclosed. Evidence of concealment of

the best mode is based upon. The material, which is not supported by the original disclosure, is as follow: "**crank mode**" is disclosed in claims 86, 90, and 97.

9. Claims 95, and 96 are rejected under 35 U.S.C. 112, first paragraph, because the best mode contemplated by the inventor has not been disclosed. Evidence of concealment of the best mode is based upon. The material, which is not supported by the original disclosure, is as follow: "**heater having a tubular shape**" is disclosed in claim 95.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 37-46, 80, 95, and 96 are rejected under 35 U.S.C. 102(b) as being anticipated by Hunt et al (US 5,482,023).

Regarding claims 37-42, the reference of Hunt et al discloses the cold start fuel control system including the following subject matters:

a cold start fuel control system having fuel supply (36), air intake passage (16), and throttle valve (24) [see fig. 1];

a cold start apparatus having a housing (184) [fig. 12] coupled on one end to the air intake passageway (16) downstream of the location of the throttle (24) [see fig. 1];

a cold start fuel injector (40) disposed in said housing (184), wherein said cold start fuel injector (40) has an inlet (122) and outlet (124) integral with an idle air conduit [see fig. 7];

said idle air conduit fluidly coupled on one end to the air intake passageway (fig. 1), and fluidly coupled on the other end to said housing (184), for delivering air adjacent to the outlet

(124) of said cold start fuel injector (40), and for intermixing air with fuel ejected from said cold start fuel injector (40), wherein said idle air conduit is arranged substantially parallel to the air intake passageway (16) and is coupled to said housing (184) downstream of the coupling with the air intake passageway (16) [see figs. 1, and 7; and col. 7, lines 40-45, col. 7, lines 60-65];

a second fuel injector (38) for supplying fuel to the cylinder, wherein said second injector (38) is disposed in the air intake passageway (16) proximate to the cylinder [see fig. 1]; and

a sensor (28) for measuring total mass air flow positioned in the air intake passageway 16) upstream of the coupling of said idle air conduit to the air intake passageway (16) [col. 3, lines 51-53].

Regarding claims 43-46, 93, and 94, as above discussions, the reference of Hunt et al further teaches the ECU (26) which is response the engine temperature from sensor (30) to generates output signals to activate the cold start fuel injection (40) [col. 5, lines 23-40].

Regarding claim 80, as above discussions (col. 7, lines 45-55).

Regarding claims 95, and 96, as above discussions, the reference of Hunt et al further teaches a heater (128) having a tubular shape [col. 7, lines 31-40].

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 40-42, 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunt et al in view of Hattori et al (US 5,315,975).

Regarding claims 40-42, 79, the reference of Hunt et al discloses the claimed invention except for a throttle valve is disposed within a tapered bore. The reference of Hattori et al discloses a throttle valve (5) is disposed within a tapered bore [see fig. 1].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the throttle valve (5) as taught by Hattori et al in the system of Hunt et al in order to assure smooth rotation of the throttle valve.

Allowable Subject Matter

14. Claims 47-61, 63-65, 67-78, 81-85, 87-89, 91, 92, and 98-100 are allowed.
15. Claims 86, 90, and 97 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
16. Claim 62 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
17. Claims 66 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yunick (US 4,862,859), Rawlings (US 4,781,165), Yunick (US 4,592,329), Earl (US 5,538,583), Swanson (US 4,375,799), and Martinez et al (US 4,348,338).

Art Unit: 3747

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnny H. Hoang whose telephone number is (571) 272-4843. The examiner can normally be reached on Monday - Thursday (7:00Am-5:30Pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Yuen can be reached on (571) 272-4856.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JHH
December 3, 2005

Johnny H. Hoang
Examiner
Art Unit 3747


HIEU T. VO
PRIMARY EXAMINER
TECH CENTER 3700
12/5/05